AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 13, as follows:

In recent years, in accordance with making high-density integrated ~~circuit~~ circuits, an ultra-microfabrication technology is required for forming a semiconductor element and wiring which form an integrated circuit, and there is a demand for [a] the development of a technique for realizing [it] this circuit.

Please amend the paragraph beginning at page 1, line 18, as follows:

For example, in order to form a fine pattern having a line width of 0.1 μm or less, when a resist film is exposed, ~~there is a technology using~~ an electron beam ~~for forming a~~ is used to form the fine patterning.

Please amend the paragraph beginning bridging pages 1 and 2, beginning at page 1, line 22, as follows:

Since the electron beam has a very short wavelength as a matter-wave [as] when compared with a wavelength used in other exposure technologies, and its diffraction aberration is so small that it can be disregarded, the electron beam exposure essentially has [a] high resolution. However, in the electron beam exposure technique (EB direct drawing), since [a] the pattern is drawn by a ~~rectangle shape~~ rectangular-shaped electron beam with a size of about several μm, [a] the throughput is lowered. This method is called a variable-shaped electron beam exposure method.

Please amend the paragraph beginning at page 2, line 6, as follows:

In order to improve the throughput, ~~at present, technology of~~ a partial batch electron beam exposure (called a cell projection or block exposure[.]) is ~~practically~~ used. This partial

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

batch electron beam exposure technology is described, for example, in Publication of Japanese Laid-Open patent. No.7 - 161605.

Please amend the paragraph beginning at page 2, line 12, as follows:

This partial batch electron beam exposure ~~technology~~ projects a pattern of several μm square area at once which appears repeatedly in a device pattern by using a stencil type electron beam mask (called Si stencil mask, an aperture, a partial batch mask, a cell projection mask, or a block mask) having at least one opening in Si film of about 20 μm of thickness. Accordingly, the number of shots of the electron beam is greatly reduced compared to the conventional EB direct drawing technology, and an improvement of throughput can be attained.

Please amend the paragraph bridging pages 2 and 3, beginning at page 2, line 22, as follows:

However, even if this partial batch electron beam exposure method is used, for a pattern without the repetition in patterns, the pattern must be directly drawn by the electron beam of the rectangle shape with a size of about several μm square (variable-shaped electron beam exposure method). For this reason, a further improvement in [a] throughput is required [in] for mass-production.

Please amend the paragraph beginning at page 3, line 5, as follows:

The electron beam exposure method which aims at a high throughput compared to a partial batch electron beam exposure method [is] has been proposed in recent years. ~~That is~~ In this method, an electron beam reduction projection apparatus using a mask having a circuit pattern for a whole semiconductor chip, irradiates an electron beam at some region of the mask, thus the reduction pattern of the region passes a projection lens and forms an image of the

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

pattern. Generally this technology is called an electron beam projection lithography (abbreviated as EPL). This EPL technology is described in Publication of Japanese Laid-Open patent No.2000-58446, for example.

Please amend the paragraphs beginning at page 4, lines 6, 12, 15 and 23, respectively, and combine them as one paragraph, as follows:

Generally, a pattern to be drawn has a pattern density which is not uniform and is out of balance [in all] over the entirety of the mask or substrate. ~~Here, for example, assuming~~ In Fig. 4(a), assume that the pattern density of the region 41 (diagonal region) is high, and the pattern density of the region 42 (white region) is low~~, as shown in Fig. 4 (a), respectively~~. ~~Next, when~~ When the size of a batch projection region on a mask is $1mm^2$, a drawing pattern is divided into the size of $1mm^2$ as shown in Fig. 4(b). Finally, when arranging $1mm^2$ size batch projection regions on an 8 inch silicon wafer 43, as conventionally shown in Fig. 4(c), they are arranged so that the move distance, i.e., the move time from a certain batch projection region to the next batch projection region to be projected may become short. Therefore, in many cases, each of the batch projection regions is arranged so that the adjacency relations of the original drawing pattern may ~~not be changed as much~~ change as little as possible. Consequently, the imbalance of the pattern density will arise all over the 8 inch wafer, and according to this imbalance of pattern density, stress occurs at the time of mask manufacturing and electron beam irradiation~~, thus~~ . Thus, curvature and distortion arise on a mask and a wafer. Accordingly, the position accuracy of a pattern ~~worsen~~worsens.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Please amend the paragraph beginning at page 9, line 9, as follows:

Conventionally, in the electron beam exposure method, the pattern is drawn in manner of single stroke, without using a mask at all. In this method, since the mask is not necessary, cost for the mask ~~can be managed with zero~~ is nothing. Moreover, there is ~~an advantage of which does not~~ no need to re-create a mask to change some mask patterns suddenly.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567